UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/754,905 | 01/04/2001 | Uwe Sydon | 01 P 7403 US | 3947 |

7590 02/22/2006

Siemens Corporation
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

| EXAMINER | |
|---|---|
| NGUYEN, STEVEN H D | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2665 | |

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov



**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application Number: 09/754,905
Filing Date: January 04, 2001
Appellant(s): SYDON ET AL.

Thomas George
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 12/08/2005 appealing from the Office action mailed 09/06/2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is deficient. 37 CFR 41.37(c)(1)(v) requires the summary of claimed subject matter to include: (1) a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number, and to the drawing, if any, by reference characters and (2) for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function as permitted by 35 U.S.C. 112, sixth paragraph, must be identified and the structure, material, or acts described in the specification as corresponding to each claimed function must be set forth with reference to the specification by page and line number, and to the drawing, if any, by reference characters. The brief is deficient because the second remote unit is not synchronizing to the first remote unit via the assigned dedicated communication channel by the central unit.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

| | | |
|---|---|---|
| 5,903,618 | Miyake et al. | 05-1999 |
| 6,574,452 | Morvan et al. | 06-2003 |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 112***

Claims 11-27 and 30-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As claim 11, the limitation "the second remote unit synchronizing to the first ... via the dedicated radio frequency connection".

As claim 20, the limitation "synchronizing the second remote unit ... via the dedicated communication channel".

As claim 32, the limitation "during direct communication between the first ... synchronizes to the first remote unit".

The specification, page 6, line 25 to page 7, lines 13, does not disclose the first and second remote unit exchanges the synchronized message via the assigned channel.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 102***

Claims 1-3, 6-10 and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyake (USP 5903618).

Regarding claim 1, Miyake discloses (Figs 1-22 and col. 1, lines 5 to col. 13, lines 5) a cordless communication system comprising a central unit (Fig 1, Ref 10); and at least two remote units (Fig 1, Ref 18) capable of radio frequency communication with said central unit and other of said at least two remote units a first of said at least two remote units is capable of providing a request to said central unit for a direct connection with a second of said at least two remote units; wherein said central unit is capable of assigning a dedicated communication channel for enabling direct communication between selected ones of said at least two remote units upon receiving a request from said first remote unit, said central unit assigns a dedicated communication channel for enabling direct communication between said first and second remote units, said second remote unit synchronizing to said first remote unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67, the synchronizing between units is not via the assigned dedicated communication channel therefore the first and second are synchronized with each others via the received sync signal from the central unit).

Regarding claim 2, Miyake discloses each of said at least two remote units is further capable of communication with another of said at least two remote units via a radio frequency connection relayed through said central unit (Col 2, lines 4-10).

Regarding claims 3, Miyake discloses each of said remote units synchronize to said central unit during communication with the central unit (Col. 2, lines 61-67).

Regarding claim 6, Miyake discloses said radio communication comprises time division duplex connections utilizing a time division multiple access (TDMA) scheme (col. 8, lines 1-21).

Regarding claims 7 and 28, Miyake discloses said radio communication comprises a frequency hopping spread spectrum (FHSS) scheme and said central unit assigns the dedicated communication channel by assigning a specific hop sequence to selected ones of said at least two remote units being orthogonal (col. 8, lines 1-21 and col. 9, lines 19-42).

Regarding claims 8 and 29, Miyake discloses said radio frequency communication comprises direct sequence spread spectrum (DSSS) scheme and said central unit assigns said dedicated communication channel by assigning a specific spreading code to selected ones of said at least two remote units being orthogonal (Col. 4, lines 47 to col. 5, lines 8 and col. 9, lines 19-42).

Regarding claim 9, Miyake discloses said central unit provides an interface for interfacing the communication system with a network (Fig 1).

Regarding claim 10, Miyake discloses the network comprises at least one of a public switched telephone network (PSTN), an integrated services digital network (ISDN), the Internet, and an Intranet (Col. 4, lines 30-46).

***Claim Rejections - 35 USC § 103***

Claims 11-27 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyake (USP 5903618) in view of Morvan (USP 6574452).

Regarding claims 11-12 and 32, Miyake discloses (Figs 1-22 and col. 1, lines 5 to col. 13, lines 5) a cordless communication system, comprising a central unit (Fig 1, Ref 10); and at least two remote units capable of radio frequency communication with said central unit (Fig 1, Ref 10

and 18); wherein each of said at least two remote units is capable of communication with another of said at least two remote units via a radio frequency connection relayed through said central unit (Col 2, lines 4-10); and wherein a first of said at least two remote units is further capable of communication with a second of said at least two remote units via a dedicated radio frequency connection assigned by said central unit for enabling direct communication between said first remote unit and said second remote unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67) and each of said remote units synchronize to said central unit during communication with the central unit (Col. 2, lines 61-67). However, Miyake fails to disclose the second remote unit synchronizing to the first remote unit during communication with the first remote unit via the dedicated radio channel. In the same field of endeavor, Morvan discloses a method and system comprising the terminals capable of performing a direct mode "confidential mode" or trunk mode "normal mode via a base station" by allowing the terminals to setup a direct mode by using the normal mode, after setting up the direct mode, one of the terminal switches to base station mode and synchronize with the other terminal (See col. 41, lines 5-39).

Since, the clock of terminals which is synchronized with a clock of base station will be drift during a cycle of broadcasting a sync message from the base station. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for synchronizing the terminals after setup a direct mode by using its old clock as disclosed by Morvan into Miyake's system. The motivation would have been to prevent data loss during the communication between the mobiles and improve the throughput of the base station.

Regarding claim 13, Miyake discloses a first of said at least two remote units is capable of providing a request to said central unit for a direct connection with a second of said at least two remote units (Fig 10, Ref 12).

Regarding claim 14, Miyake discloses upon receiving a request from said first remote unit, said central unit assigns a dedicated communication channel for enabling direct communication between said first and second remote units, said second remote unit synchronizing to said first remote unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67).

Regarding claim 15, Miyake discloses said radio communication comprises time division duplex connections utilizing a time division multiple access (TDMA) scheme (col. 8, lines 1-21).

Regarding claims 16, 24, 26, 30 and 33, Miyake discloses said radio communication comprises a frequency hopping spread spectrum (FHSS) scheme and said central unit assigns the dedicated communication channel by assigning a specific hop sequence to selected ones of said at least two remote units being orthogonal (col. 8, lines 1-21 and col. 9, lines 19-42).

Regarding claims 17, 25, 27, 31 and 34, Miyake discloses said radio frequency communication comprises direct sequence spread spectrum (DSSS) scheme and said central unit assigns said dedicated communication channel by assigning a specific spreading code to selected ones of said at least two remote units (Col. 4, lines 47 to col. 5, lines 8 and col. 9, lines 19-42).

Regarding claim 18, Miyake discloses said central unit provides an interface for interfacing the communication system with a network (Fig 1).

Regarding claim 19, Miyake discloses the network comprises at least one of a public switched telephone network (PSTN), an integrated services digital network (ISDN), the Internet, and an Intranet (Col. 4, lines 30-46).

Regarding claim 20, Miyake discloses (Figs 1-22 and col. 1, lines 5 to col. 13, lines 5) a method for providing direct radio frequency communication between remote units in a cordless communication system, comprising providing a request to a central unit for direct radio frequency communication between a first remote unit and a second remote unit (Figs 10 and 15, Ref 12); and initiating a direct connection between the first remote unit and the second remote unit via a dedicated communication channel assigned to the first remote unit and the second remote unit by the central unit (Figs 10-11, 15-16 and col. 9, lines 19-42 and col. 2, lines 4-67). However, Miyake fails to disclose synchronizing the second remote unit to the first remote unit during direct communication between the first remote unit and the second remote unit via the dedicated communication channel. In the same field of endeavor, Morvan discloses a method and system comprising the terminals capable of performing a direct mode "confidential mode" or trunk mode "normal mode via a base station" by allowing the terminals to setup a direct mode by using the normal mode, after setting up the direct mode, one of the terminal switches to base station mode and synchronize with the other terminal (See col. 41, lines 5-39).

Since, the clock of terminals which is synchronized with a clock of base station will be drift during a cycle of broadcasting a sync message from the base station. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for synchronizing the terminals after setup a direct mode by using its old clock as disclosed by Morvan into Miyake's system. The motivation would have been to

prevent data loss during the communication between the mobiles and improve the throughput of the base station.

Regarding claim 21, Miyake discloses further comprising determining that communication between the first remote unit and the second remote unit has ended; and terminating the direct connection between the first remote unit and the second remote unit (Figs 11 and 15, Ref 54, 56, 58, 60 and 62, col. 9, lines 19-42).

Regarding claim 22, Miyake discloses wherein determining that communication between the first remote unit and the second remote unit has ended comprises providing an indication to the central unit that communication between the first remote unit and the second remote unit has ended (Figs 11 and 15, Ref 54, 56, 58, 60 and 62, col. 9, lines 19-42).

Regarding claim 23, Miyake discloses initiating a direct connection between the first remote unit and the second remote unit comprises assigning the dedicated communication channel (col. 9, lines 19-42).

**(10) Response to Argument**

With respect to Appellant's argument that the limitation "the second remote unit synchronizing to said first remote unit during communication with said first remote unit via the dedicated radio frequency connection" for claim 11; "synchronizing the second remote unit to the first remote unit during direct communication between the first remote unit and the second remote unit via the dedicated communication channel" for claim 20 "the first remote unit functioning as a temporary central unit for the second remote unit during direct communication between the first remote unit and the second remote unit so that the second remote unit synchronizes to the first remote unit" for claim 32 are supported by the specification at page 6,

line 25 through page 7, lines 13 which carefully read by examiner. The examiner, however, respectfully traverses the Appellant's argument because the specification at page 6, line 25 through page 7, lines 13 does not reveal any supports for the claimed limitations such as the second remote unit transmits a sync or timing signal to the first remote unit via the dedicated communication channel/frequency.

With respect to Appellant's argument of claims 1-3, 6-10 and 28-29 that Miyake fails to disclose a second remote unit that synchronizes to the first remote unit during direct communication with the first remote unit via the dedicated radio frequency connection as stated in claims 1-3, 6-10 and 28-29. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **a second remote unit that synchronizes to the first remote unit during direct communication with the first remote unit via the dedicated radio frequency connection and a second remote unit directly synchronize to the first remote unit**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Miyake disclose the second remote unit and the first remote unit receiving a sync message from a base station in order to synchronize with the base station. The second remote unit is synchronizing to the first remote unit because they use the same sync message to correct their clock. For example, after receiving a sync or timing signal from the base station, the clock of mobiles is adjusted to the clock of base station (after synchronizing, the clock of base station show 12:00 AM, then clock of mobiles shows 12:00AM). Therefore,

Miyake clearly disclose a second remote unit is synchronizing to the first remote unit because the claimed limitation does not claim how the mobiles are synchronized with each others.

With respect to Appellant's argument of claims 11-27 and 30-34, Appellant traversed the Examiner's rejection by claiming that in either present prior arts fail to teach any advantage or suggestion/motivation for a proposed combination. The examiner, however, respectfully traverses the Appellant's argument because the Miyake et al patent discloses a method and system for assigning a communication channel for the mobiles from a base station in order to allow them to directly communicate with each others without using the base station as a repeater and the mobiles are synchronized with each others via a received sync signal from based station. the Miyake et al patent fails to disclose the remote units directly exchanges the sync signal with each others via the assigned dedicated communication channel in order to synchronize with each others. However, the Miyake et al patent suggests that the mobiles must synchronize with each others before performing peer-to-peer communication without using a base station (Col. 8, lines 34-54). Therefore, the examiner does not reply on The Miyake et al patent to show such teachings. It is reference to the Morvan et al. patent that provides the environment and conditions in which the mobiles synchronizes with each others via the dedicated communication channel during a peer to peer communication without using a base station. Furthermore, when combining the references, the examiner does not suggest that the two references are readily incorporated into one another to achieve the claimed invention, but rather what the references suggest to one of ordinary skill in the art which is teaching how to synchronize the mobiles via the dedicated communication channel without using the base station to establish a connection between the

mobiles as disclosed by the Morvan et al. patent for set forth in the above rejection of claims 11-27 and 30-34.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Miyake et al patent suggests that the mobiles must synchronize with each others before performing peer to peer communication without using a base station and the Morvan et al patent suggests that the base station and mobiles must synchronize with each others in order to perform a communication (Col. 1, lines 10-21). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a teaching of the Morvan et al patent into the Miyake et al patent in order to prevent data loss during the communication between the mobiles and improve the throughput of the base station.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Steven Nguyen

STEVEN NGUYEN
PRIMARY EXAMINER

Conferees:

Huy Vu

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Chau Nguyen

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600